

## Supplementary Materials for

### **Broadly neutralizing antibodies abrogate established hepatitis C virus infection**

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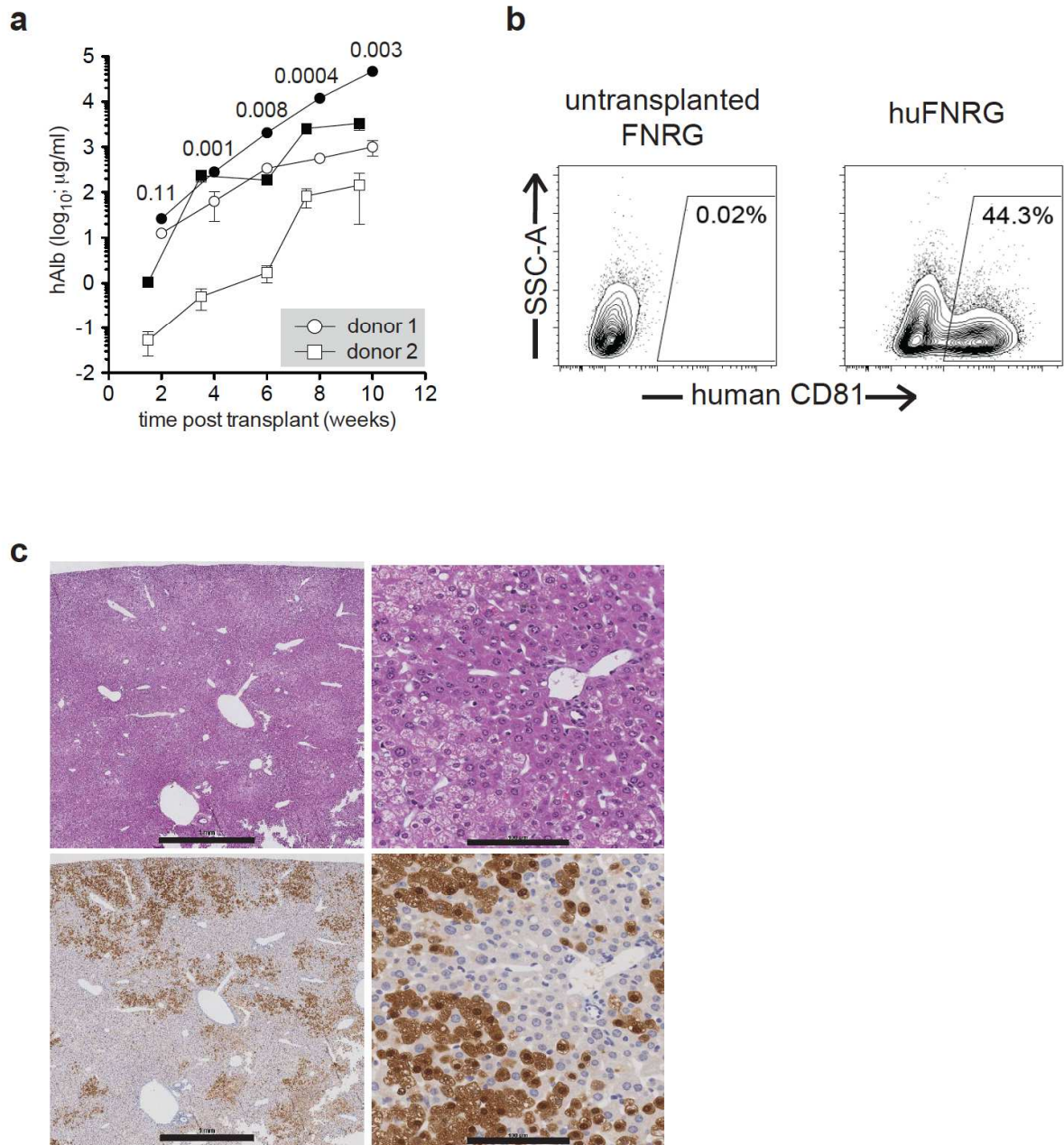
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#### **The PDF file includes:**

Fig. S1. Human hepatocyte engraftment in  $Fah^{-/-}$  NOD  $RagI^{-/-}$   $IL2R\gamma^{null}$  mice.  
Fig. S2. AAV8 vectors affect the liver.  
Fig. S3. Comparison of synonymous and nonsynonymous mutations in AR- and b6-treated mice.  
Table S1. Source data.

# SUPPLEMENTARY MATERIALS

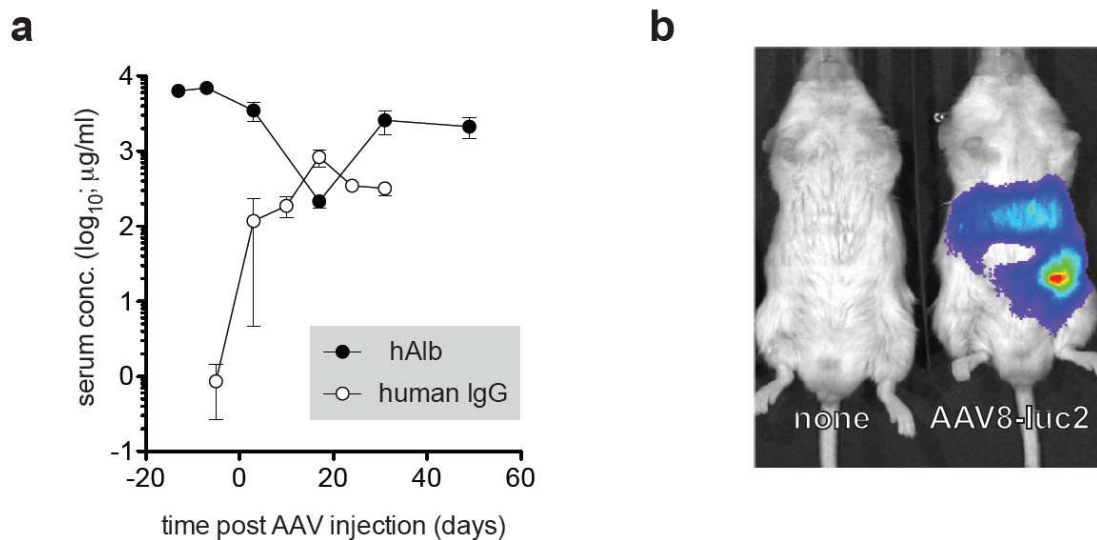
## Supplemental figure 1



**Supplementary figure 1. Human hepatocyte engraftment in *Fah*<sup>-/-</sup> NOD *Rag1*<sup>-/-</sup> *IL2Rγc*<sup>null</sup> mice. (a)** Using two different human hepatocyte donors engraftment kinetics as assessed by serum hAlb levels were compared between FNRG mice (black symbols) and FRG mice (open symbols). *P* values indicated for Donor 1, unpaired *t*-test. **(b)** To quantify the levels of human cells in FNRG mice with high engraftment, hepatocytes

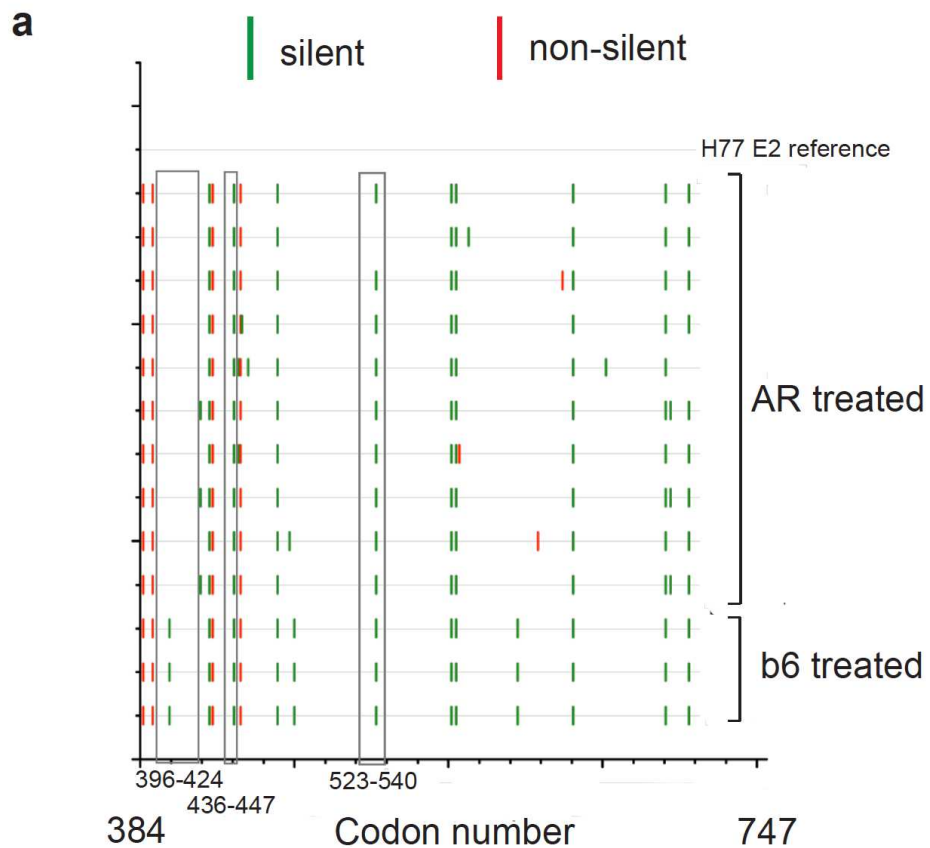
were isolated and stained for human CD81. Three mice that had hAlb levels in the 9-25mg/ml range had 36-44% hCD81+ hepatocytes by flow cytometry. **(c)** Histological examination of chimeric FNRG livers showed multiple islands of pale looking hepatocytes throughout the mouse liver on H&E staining, with immunohistochemical staining for FAH (brown) indicating that these were human hepatocytes (left panels 1.9x, scale bar 1mm; right panels 21x, scale bar 100 $\mu$ m).

## Supplemental figure 2



**Supplementary figure 2. AAV8 vectors affect the liver. (a)** Serum levels of hAlb and human IgG were determined in HCV infected huFNRG mice that received intramuscular injection of AAV vectors. **(b)** FVB mice received one intramuscular injection of a luciferase encoding AAV vector (AAV8-luc2, right) or none (left) and luminescence was measured 3 days later.

### Supplemental figure 3



**Supplementary figure 3. Comparison of synonymous and nonsynonymous mutations in AR- and b6-treated mice.**

Individual HCV (H77) E2 envelope sequences cloned from single human liver chimeric mice (y-axis) during therapy with the AR pool or b6 control antibody after viral rebound. HCV E2 sequences are represented by horizontal gray bars with synonymous mutations indicated in green and amino acid replacements in red. Highlighted in boxes are the regions containing the known epitopes for the nAb anti-HCV antibodies.

**Supplementary table 1. Source data.**

mouse #	Figure	hAlb at HCV challenge (µg/ml)	IgG at HCV challenge (µg/ml)	max IgG (µg/ml)	AR pool or control
626	1e	596	31.3	143.2	AR pool (AAV)
627	1e	396	61.6	238.1	control (AAV)
1009	1e	605	61.6	185.4	AR pool (AAV)
7357	1e	1082	125.8	291.0	control (AAV)
8872	1e	2743	26.0	94.8	AR pool (AAV)
8874	1e	3290	28.5	133.5	control (AAV)
7578	1e	9375	1288.1	same	AR pool (purified)
7579	1e	11941	1836.4	same	AR pool (purified)
7582	1e	5852	736.6	same	AR pool (purified)
7583	1e	8747	1522.7	same	control (purified)
7584	1e	7657	1939.9	same	control (purified)
7585	1e	10784	2086.8	same	control (purified)
622	3a-d	2343	n/a	3342.2	AR pool (purified)
624	3a-d	3790	n/a	1057.2	AR pool (purified)
786	3a-d	4968	n/a	939.1	control (purified)
1002	3a-d	7330	n/a	2007.4	AR pool (purified)
8913	3a-d	5406	n/a	915.1	control (purified)
826	3e	20172	n/a	2510.1	control (purified)
4642	3e	15117	n/a	4468.5	AR pool (purified)
5627	3e	20624	n/a	2998.9	control (purified)
5630	3e	27429	n/a	1906.2	AR pool (purified)
6976	3e	1724	n/a	2606.4	control (purified)
6978	3e	3119	n/a	1029.5	AR pool (purified)
6979	3e	2367	n/a	1961.8	control (purified)
6980	3f	1625	n/a	2083.9	control (purified)
6981	3f	2106	n/a	1837.1	AR pool (purified)
6985	3f	7334	n/a	2466.2	control (purified)
6986	3f	3924	n/a	3473.1	AR pool (purified)
6990	3f	1026	n/a	1620.2	control (purified)
6991	3f	2467	n/a	2051.1	AR pool (purified)
4992	3f	5190	n/a	1638.3	control (purified)
5754	3f	7564	n/a	1496.4	AR pool (purified)